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ABSTRACT

This report summarizes the level of academic achievement, and the extent of racial and gender gaps in that achievement, of students in North Carolina's Wake County Public School System (WCPSS). The comparison was conducted using 1993 End-of-Grade (EOG) tests; low income group EOG test performance; 1993 writing tests and high school writing failures; high school low achievement ratings; placement in special programs for students identified as learning disabled or behaviorally/emotionally handicapped; poor academic performance in reading and mathematics; and other measures of academic success. The results, presented in graphic format, show that white females were the most successful group, while black males were the least successful group. Major findings are: (1) black students are most likely to come from low-income single-parent families; (2) more than half of black students scored in Levels I and II on the 1993 End-of-Grade tests, compared to less than 20% of white students; (3) when low achievement scores are analyzed separately for students receiving free or reduced-price lunch, gaps still existed between race and gender groups; and (4) the United States History End-of-Course test was the one achievement measure on which males in all three racial categories had fewer low scores than females. (AP)

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RACIAL AND GENDER GAPS IN ACADEMIC ACHIEVEMENT

Department of Evaluation and Research
Wake County Public School System

July 1994

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RACIAL AND GENDER GAPS IN ACADEMIC ACHIEVEMENT

REPORT SUMMARY

Authors: Chuck Dulaney and Karen Banks

BACKGROUND

The majority of WCPSS students do very well on most measures of academic achievement. While average performance is very good, the performance of some groups of students lags behind the performance of other groups. The purpose of this report is to display in graphic format the extent of some of the gaps in academic achievement. The report is printed on single-sided pages so that graphs can be copied as overhead transparencies for staff meetings.

MAJOR FINDINGS

On almost all academic measures reviewed for this report, White females were the most successful group, and Black males were the least successful group. Findings displayed in this report indicate:

- Black students are more likely to come from low-income single-parent families.
- More than half of Black students scored in Levels I and II on the 1993 End-of-Grade tests, compared to less than 20% of White students.
- When low achievement scores were analyzed separately for students receiving free or reduced price lunches, gaps still existed between race and gender groups.
- White females dropped out of high school least frequently and received the fewest failing grades, and Black males dropped out most frequently and received the most failing grades.
- The U. S. History End-of-Course test was the one achievement measure on which males in all three racial categories had fewer low scores than females.
- Males are more frequently identified as learning disabled than females, and Black males are more frequently identified as Behaviorally/Emotionally Handicapped than other groups.

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INTRODUCTION

Children do not enter WCPSS with the same characteristics as all other children. They vary in noticeable attributes such as size, race and gender, and they vary in less obvious attributes such as family structure, family income, and home environment. They vary in their individual learning styles, and they vary in the kinds of prior experiences they bring with them through the classroom doors.

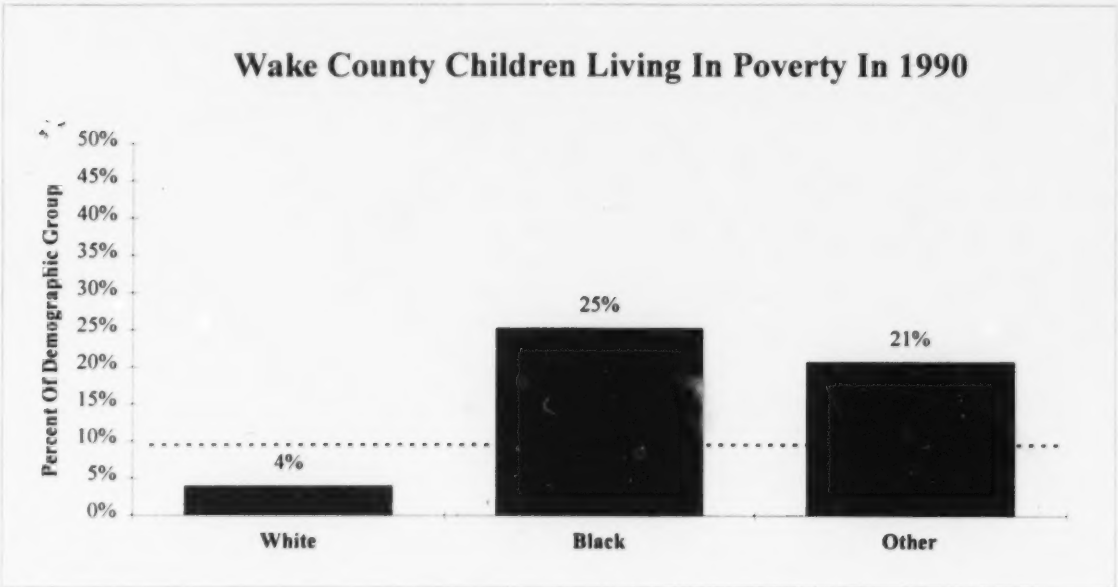
The Evaluation and Research Department prepared the graphs in this document in order to help WCPSS educators study the ways in which different groups of students are performing in our schools. While many attributes affect student performance, only a few are available on computer databases, and most of the graphs show information disaggregated by race and gender. When applicable, dotted lines are used on the graphs to show countywide measurements for all groups.

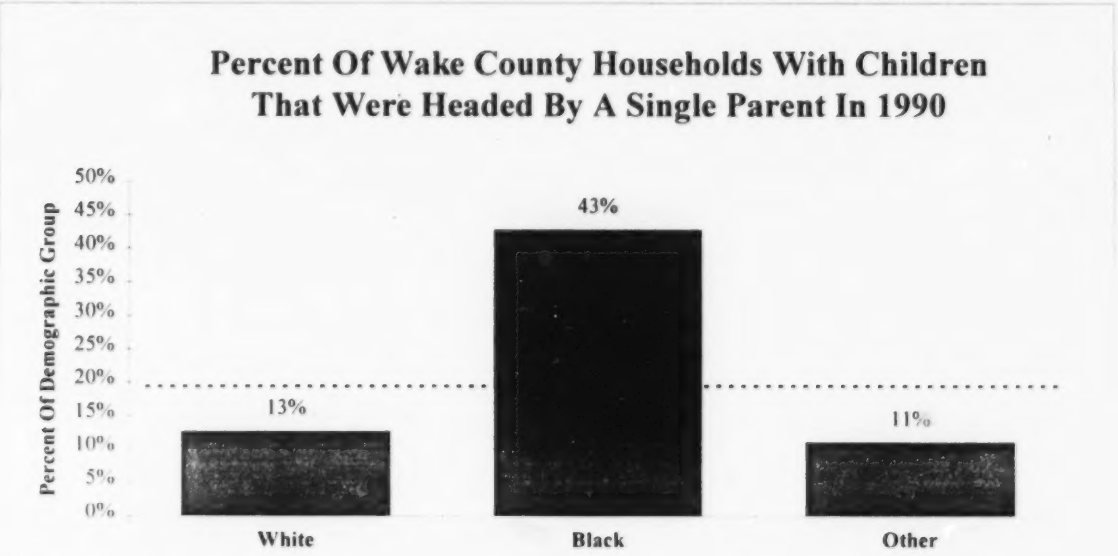
This document describes differences between groups of students. Understanding of these differences is a first step. The differences stand as a challenge to the entire school system to find instructional strategies that will meet the needs of ***all*** students. Some of the questions that will require serious discussion, sharing, and study include the following:

- Why does the profile of low achieving students seem to vary so little from grade level to grade level and from test to test?
- How are instructional strategies related to the patterns of student achievement?
- To what degree can different instructional strategies serve to reduce and eliminate the gaps in performance between different race and gender categories?
- How do current administrative and instructional practices serve to reinforce the patterns of low achievement for certain groups?
- What areas of the curriculum might be more or less affected by differences related to race and gender?
- What schools, programs, or teachers have been more successful than the overall school system in achieving successful performance for students in all race and gender categories?
- How can successful practices best be shared between schools?

The first two charts show population characteristics taken from the 1990 Census Summary Tape File 3C. Children includes all persons under age 18. Poverty is defined as a 1989 income below $12,674 for a family of four.

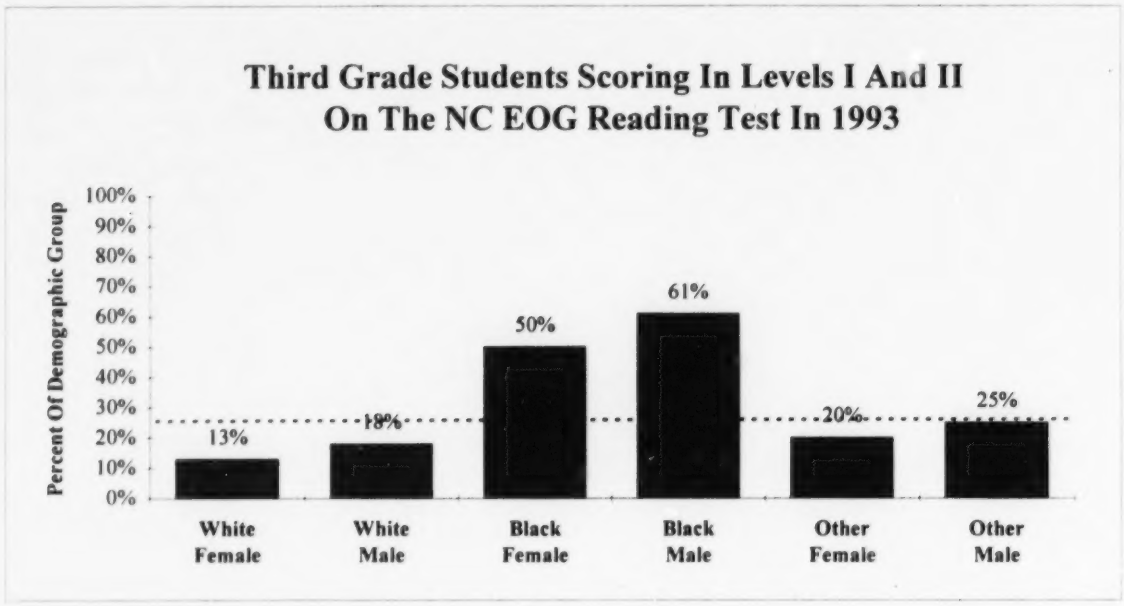
These two charts show that Black students are more likely to both live in poverty and live with a single parent than students in other racial groups.

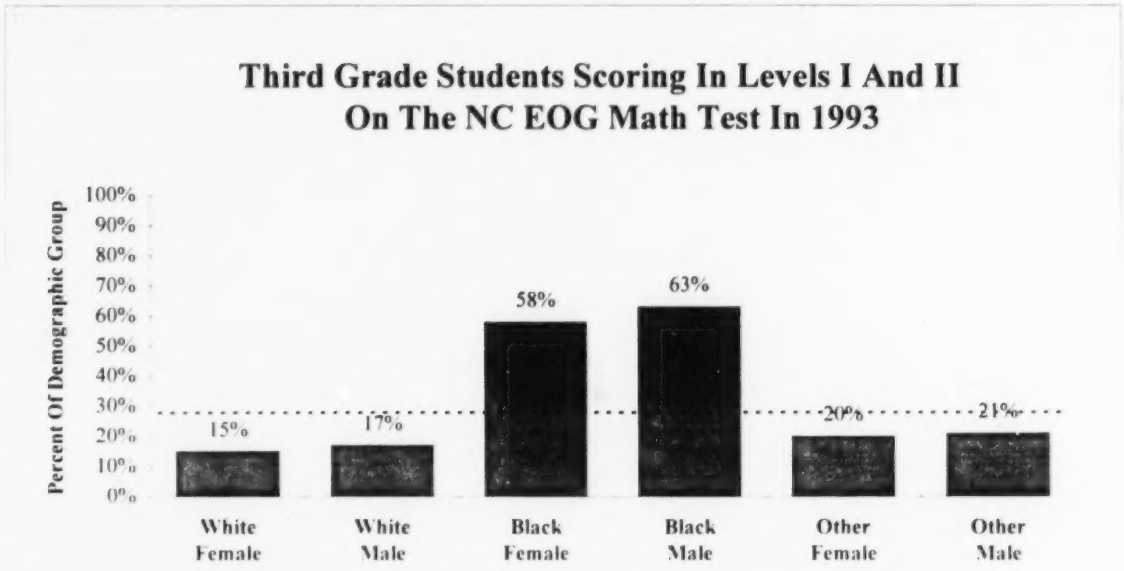




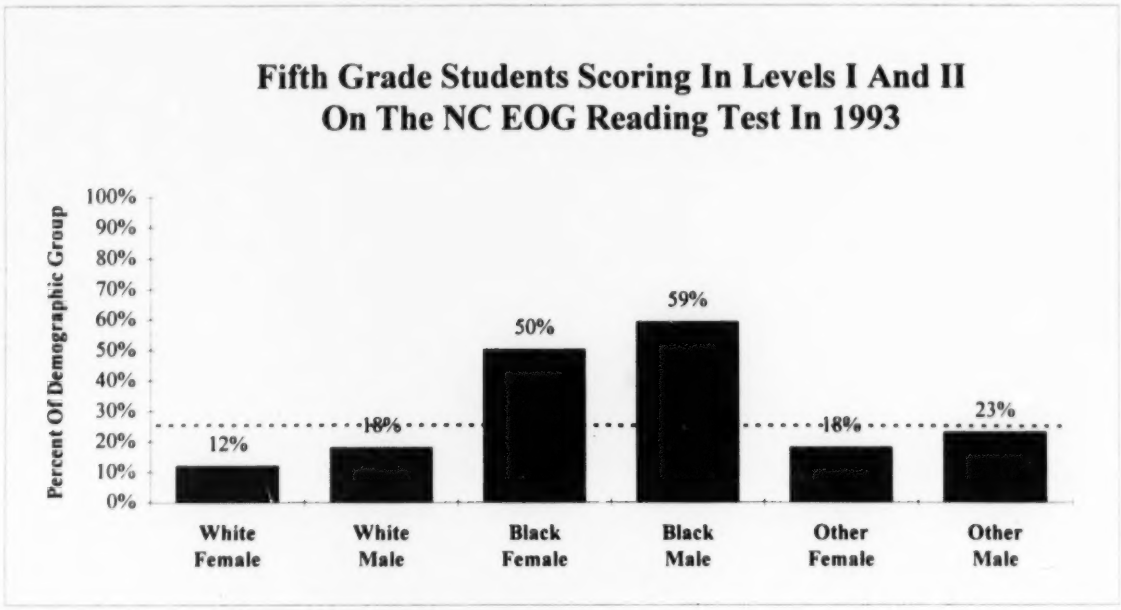
NOTE: The dotted line indicates the county percentage for all groups combined.

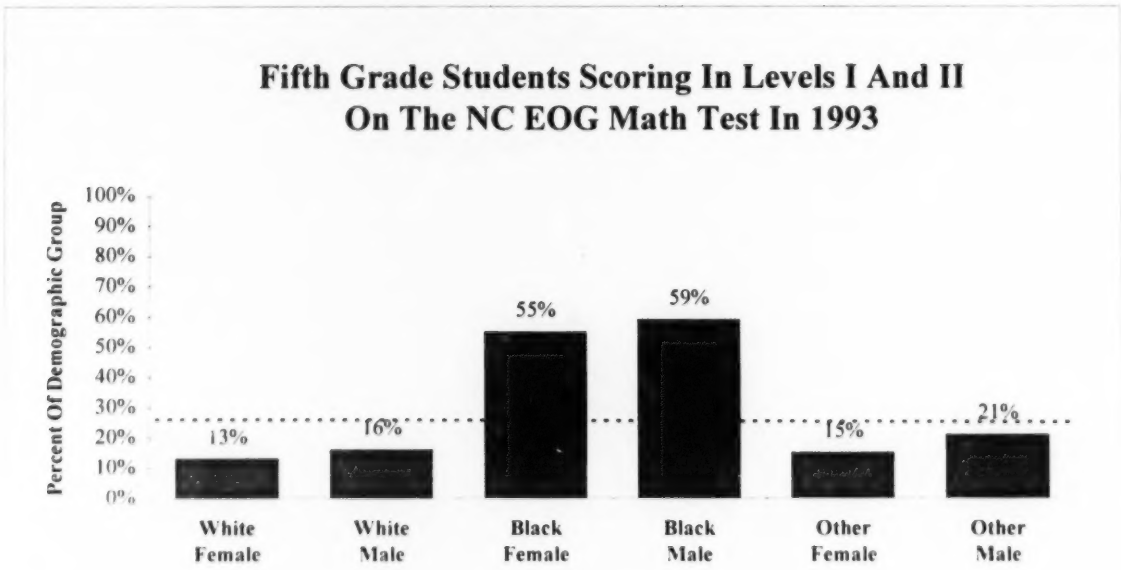
The North Carolina End-of-Grade Tests generate scores that place students in four achievement levels. Level I scores indicate that "students do not have sufficient mastery of knowledge and skills to be successful at the next grade level." Level II scores indicate that "students demonstrate inconsistent mastery of knowledge and skills and are minimally prepared to be successful at the next grade level." Therefore students with Level I and Level II scores can be considered low achieving students who may need extra help at the next grade level. More than half of all Black students scored in the low achievement levels in 1993.



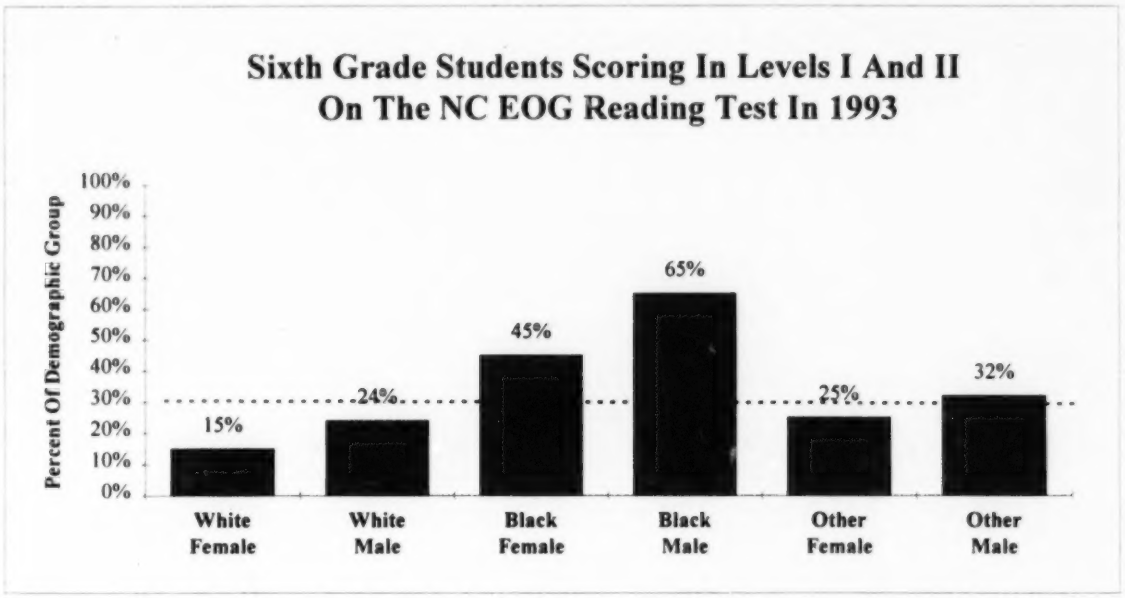


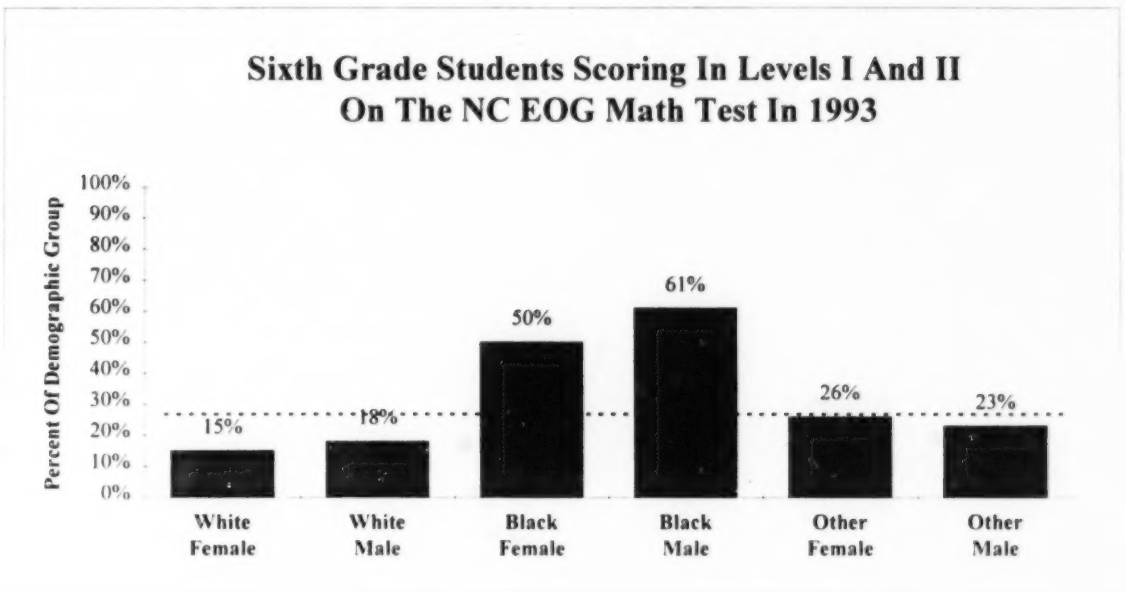
In 1993, the profile of low achievers at the end of fifth grade was very similar to the profile of low achievers at the end of third grade. Black males, followed by Black females, were more likely to show low achievement on the End-of-Grade test.





The profile of low achieving students at the end of sixth grade again shows very little change except for an increase in the gaps between gender groups, particularly on the reading test. A higher percentage of males than females were in the low achievement categories.





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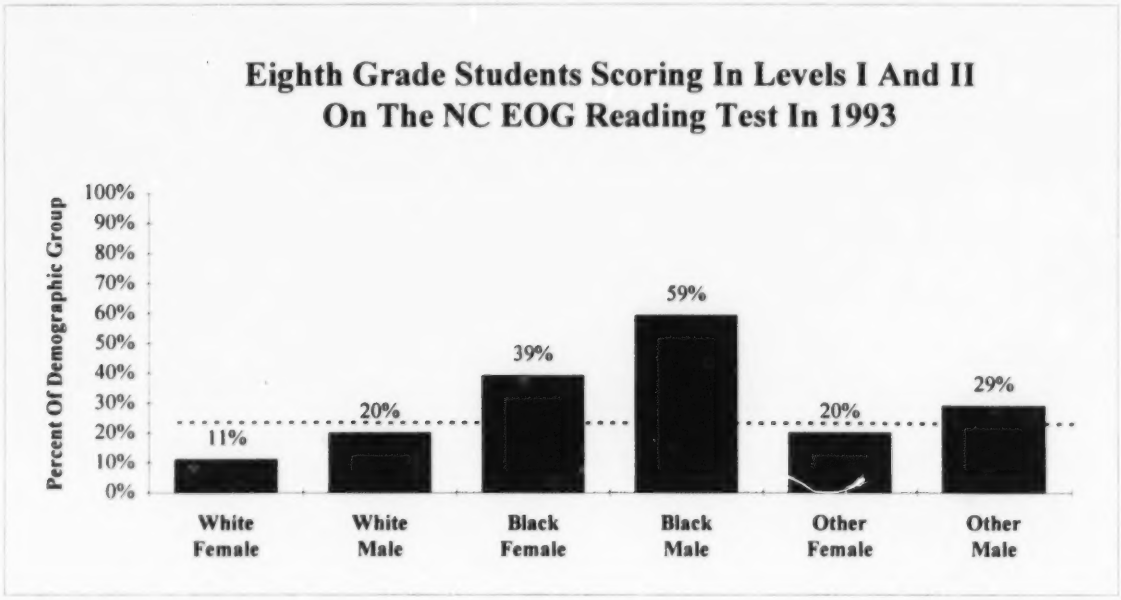
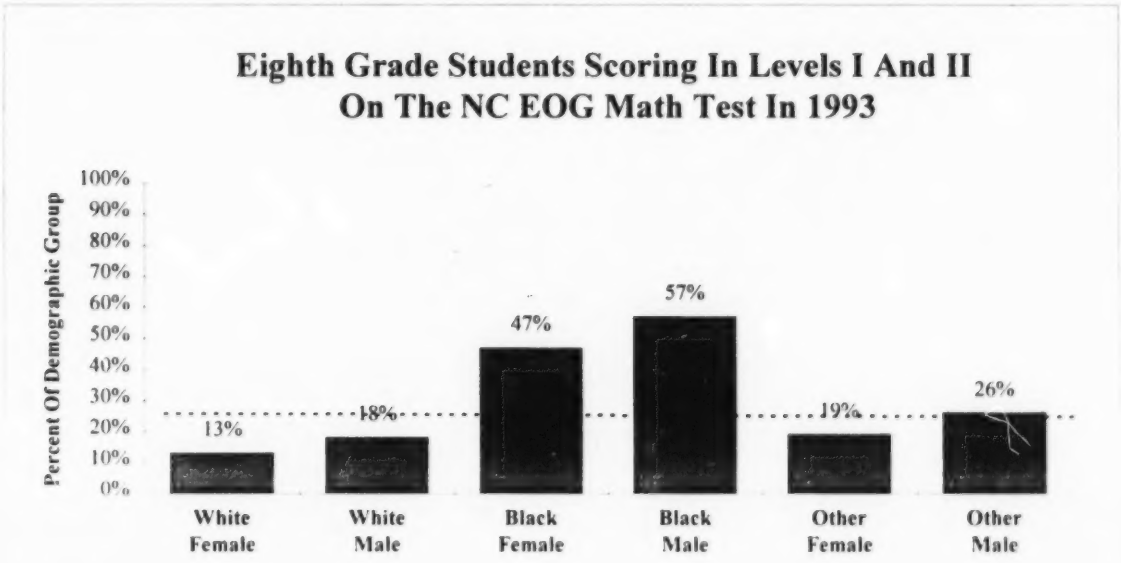
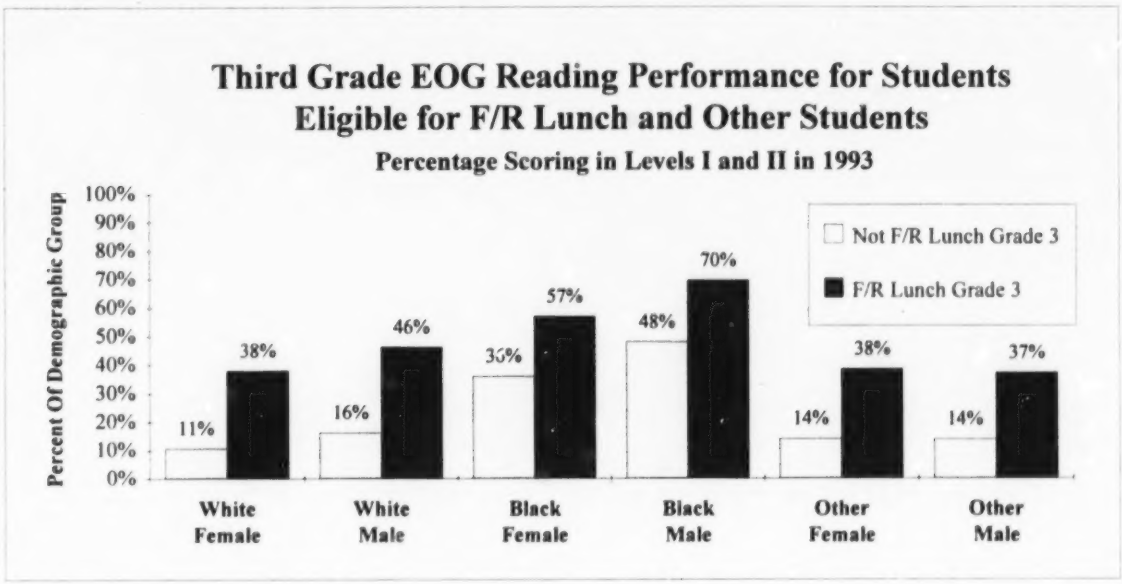
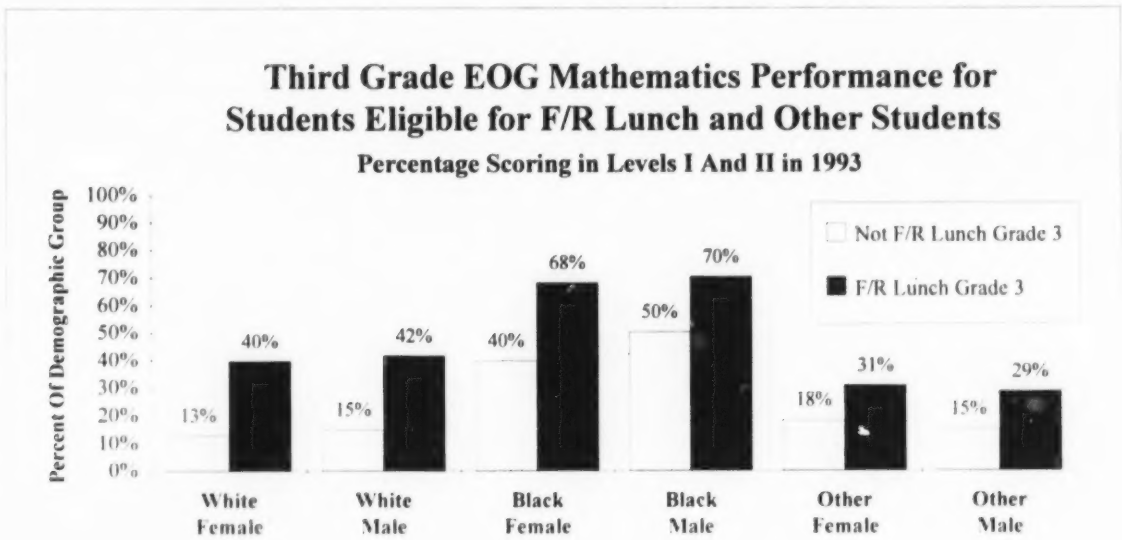
Eighth grade is the final year of End-of-Grade testing. The profile of students who scored in Levels I and II in 1993 showed very little change from grade level to grade level except that gender gaps were wider in middle school.





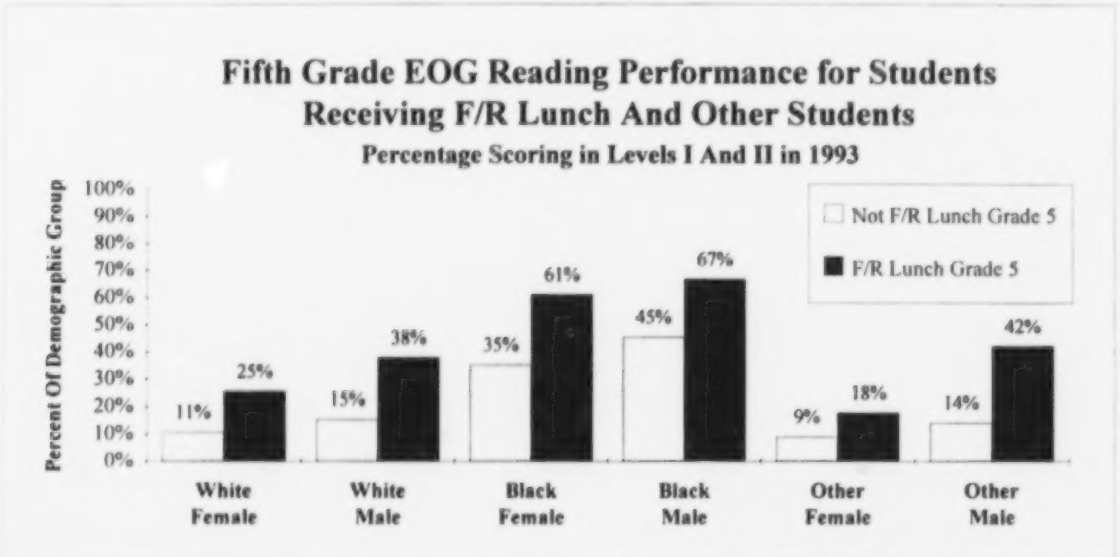
As was shown on the census data at the start of this report, large economic differences exist between racial groups in Wake County. The only economic measure available for students is whether or not a family applies and is approved for free or reduced price lunches. A family of four that qualified for free lunches in 1993 earned less than $18,655. A family of four qualifying for reduced price lunches earned less than $26,548. In 1993-94, approximately 20% of WCPSS elementary students received free lunches and 4% received reduced price lunches. The following graphs compare the profile of low achieving students who did and did not receive free or reduced price lunches.

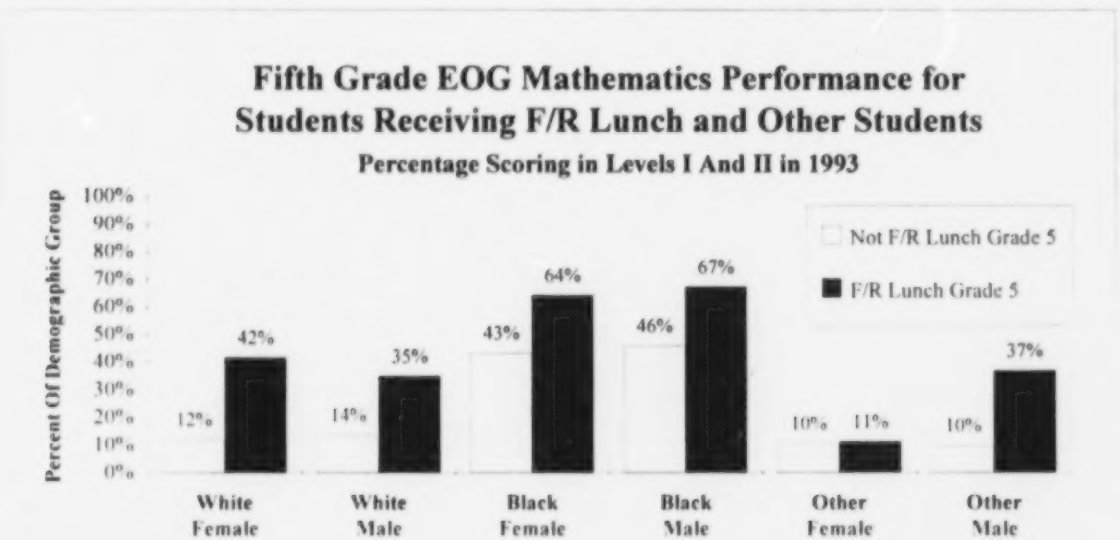




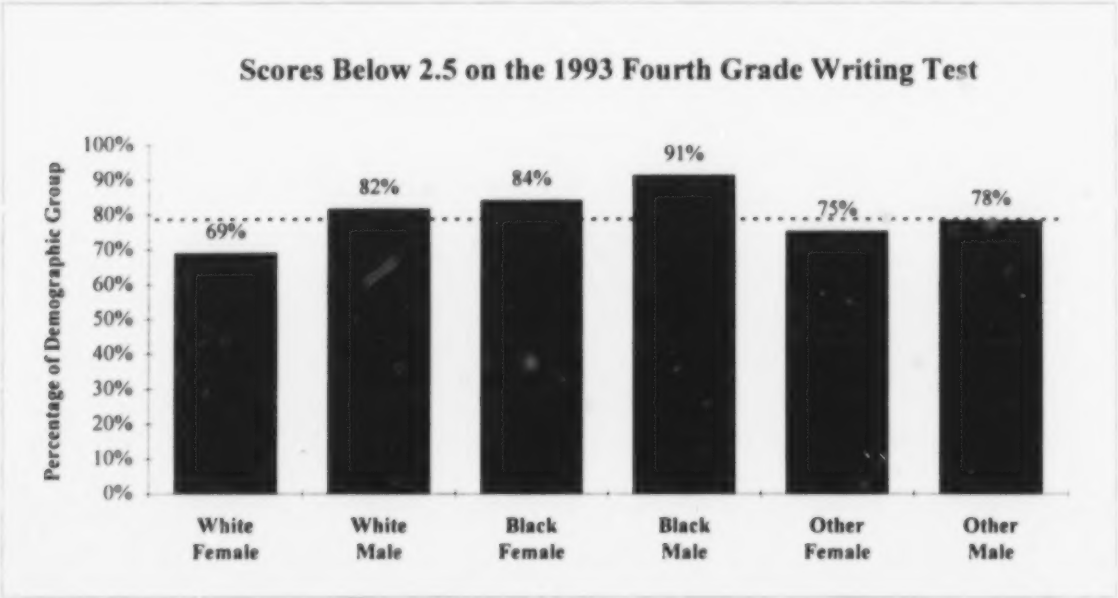
Family income was clearly a factor identifying low achieving students in third grade and fifth grade. Students from higher income families in all groups were less likely to be found in Levels I and II. Family income seemed to be a particularly dramatic factor for White students, where the percentage of low-achieving students more than doubled for students who received free or reduced price lunches.

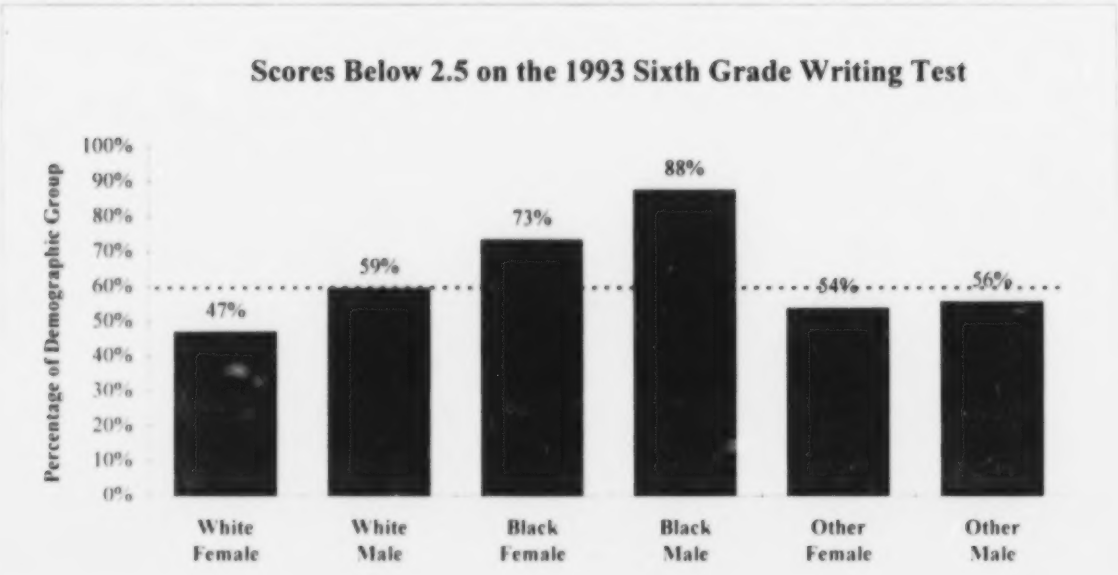
Student achievement was impacted by race and gender even for students not coming from low-income families. Black males still had the highest percentage of low achieving students.



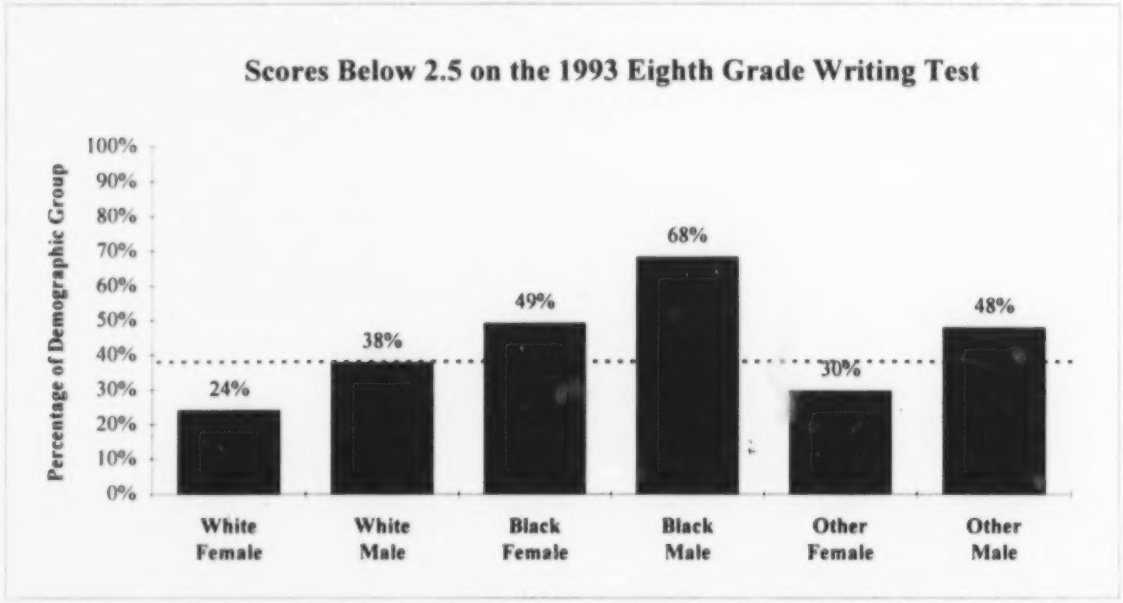


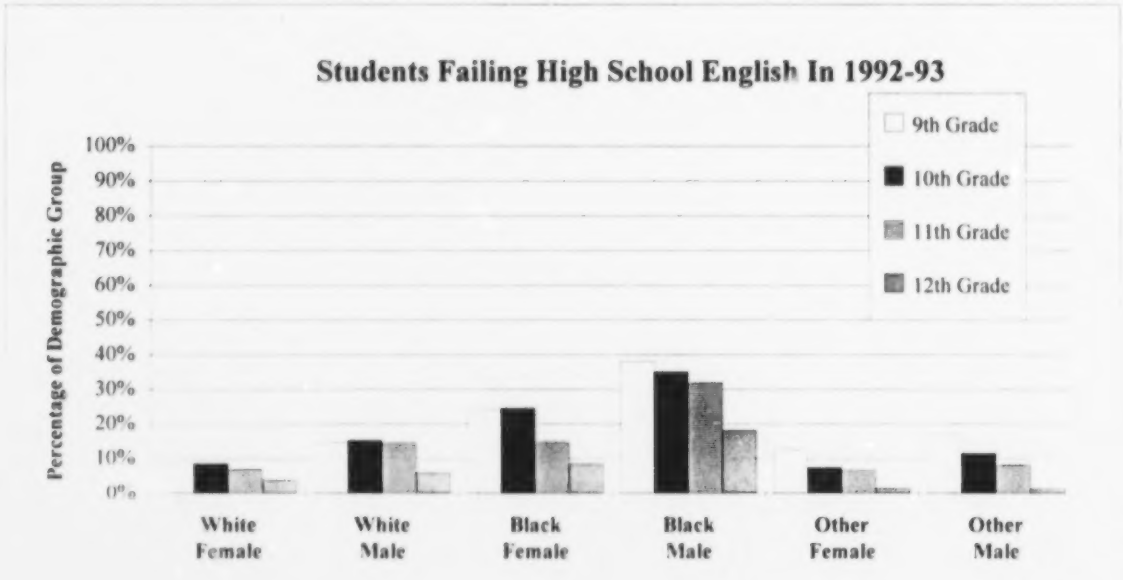
The statewide writing test is given in grades 4, 6, and 8. Each test is holistically scored by two independent readers on a four point scale, and the two scores are averaged. A score of 2.5 or better is considered evidence of acceptable writing skills. In 1993, as shown below, a large majority of students in all demographic groups in fourth grade scored below the acceptable level. In sixth grade, there were wider gaps between the six race/gender categories, with Black males and females again showing higher percentages in the low achievement category.



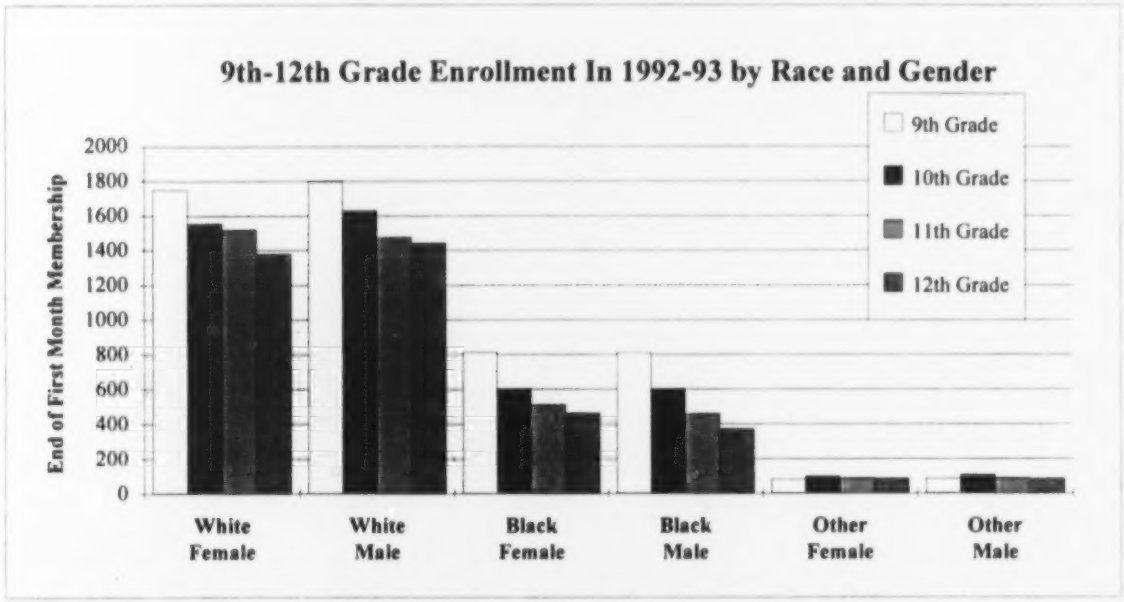


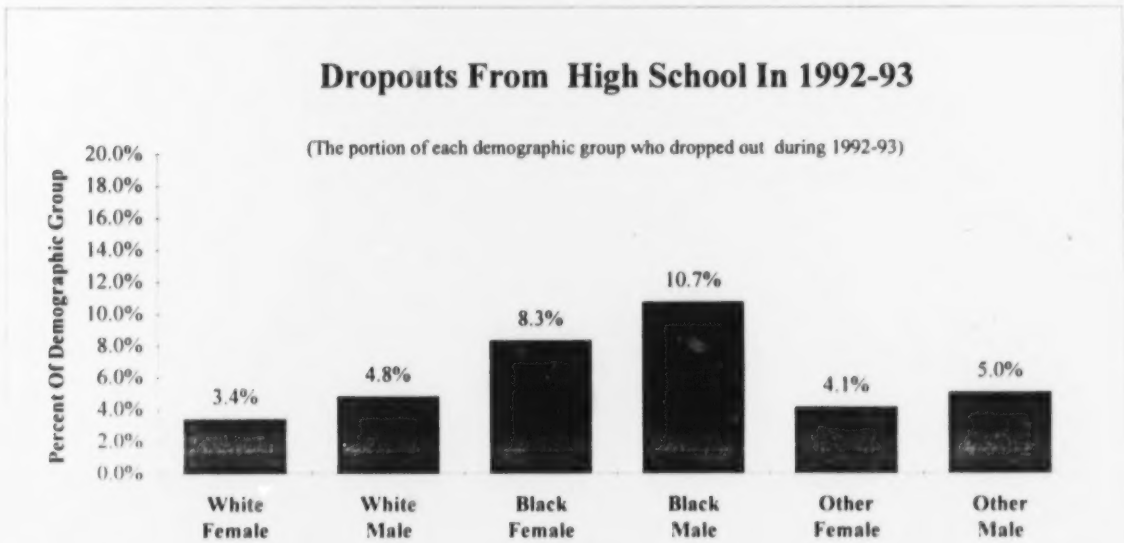
Eighth grade had fewer students scoring below 2.5, but the gaps between race and gender groupings were wider. The pattern of low scores on the writing test was similar to the pattern of students who failed high school English classes the prior year. While slightly less than half as many students failed English as scored low on the writing test, the demographic pattern was very similar, particularly in ninth and tenth grade.



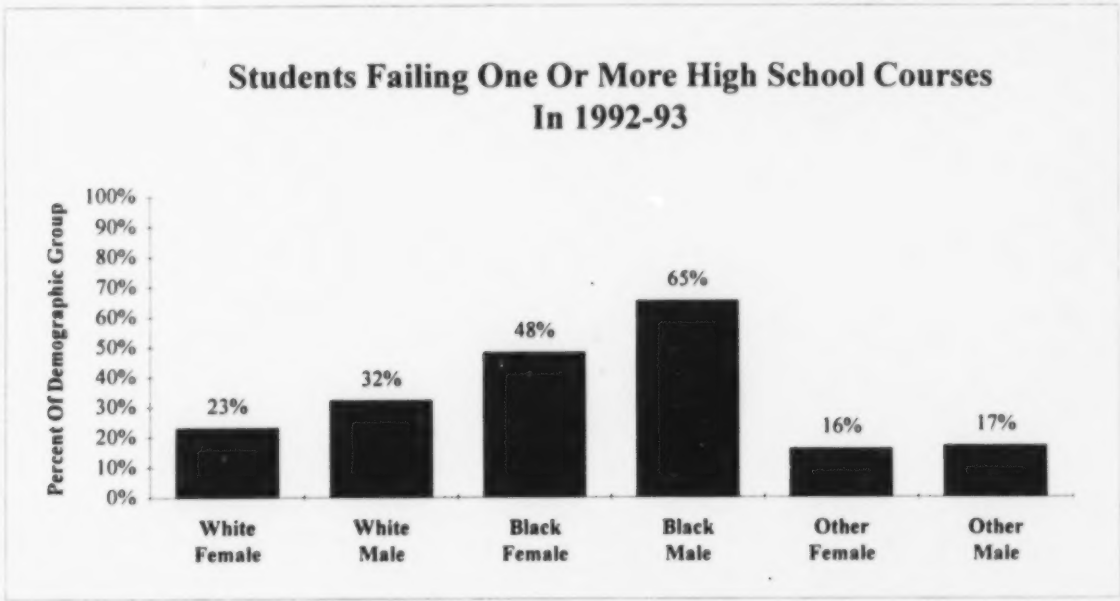


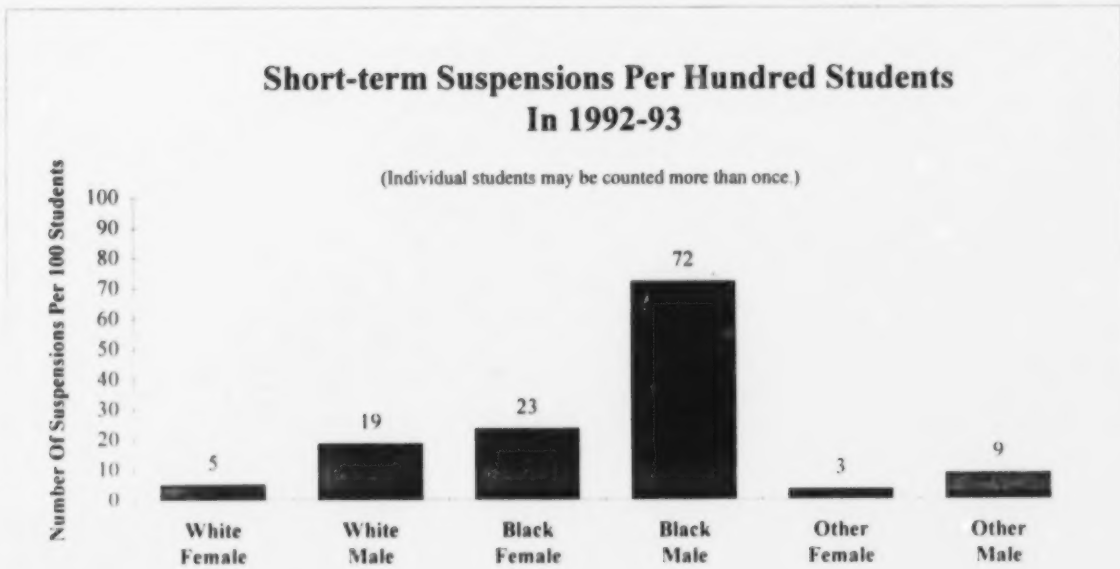
All six race and gender groupings showed declining enrollment from ninth grade to twelfth grade in 1992-93. This decline resulted primarily from the impact of students dropping out of school. The rate of dropping out caused a much steeper decline in enrollment for Black students than it did for White students, even though the total numbers of White students and Black students lost as dropouts were approximately equal.



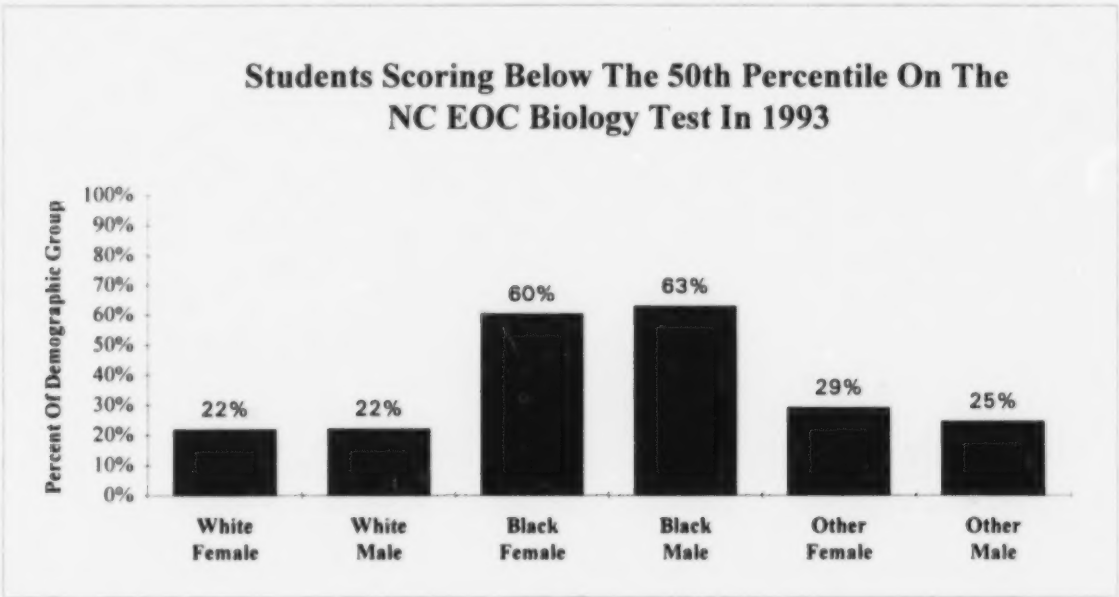


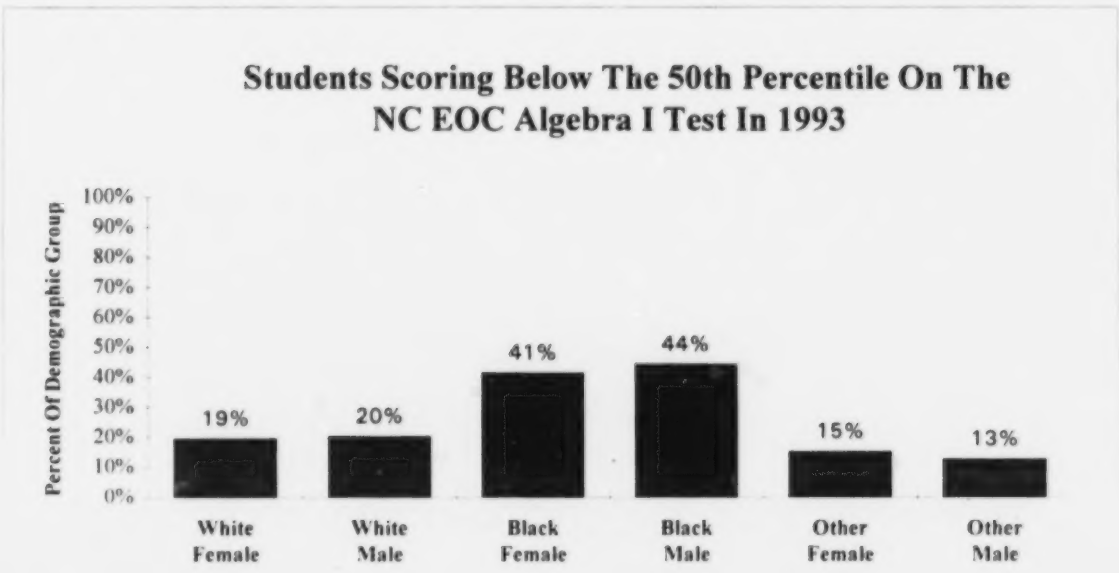
Academic failure and behavior problems are commonly cited reasons reported for students who drop out. These two graphs show the percentage of high school students who failed at least one of their courses in 1992-93, and the number of disciplinary out-of-school suspensions that were made per hundred students in each demographic group.



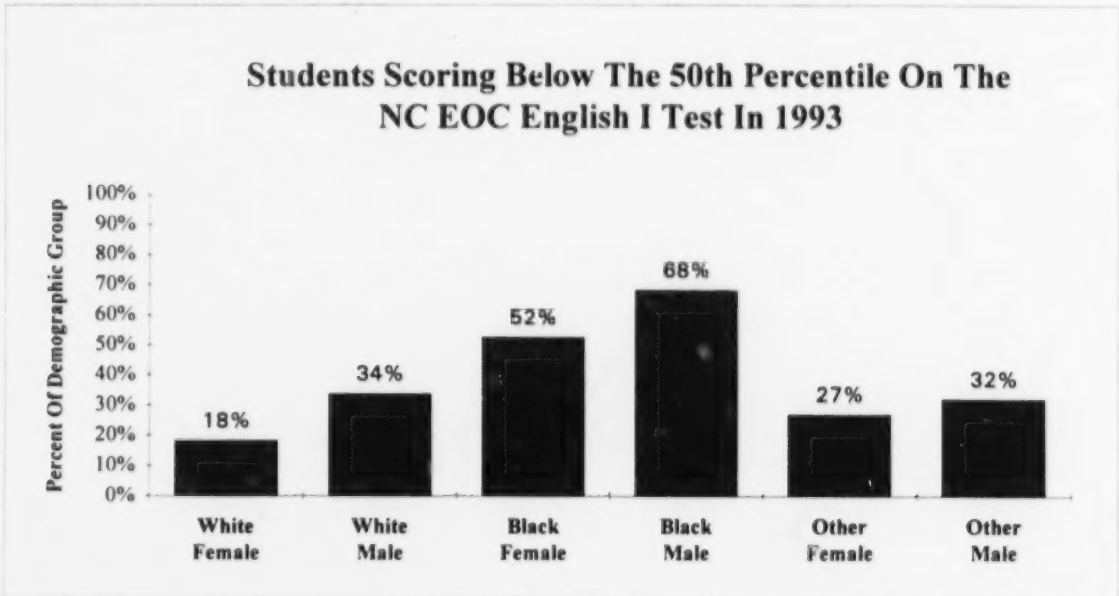


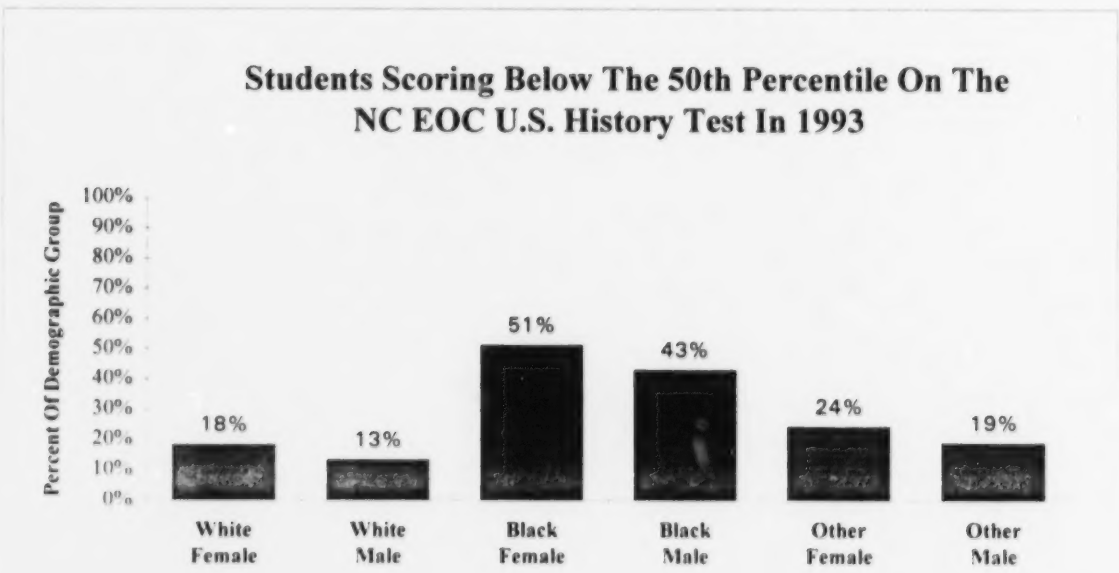
In addition to the rate at which students fail courses, academic failure in high school can be measured by examining the percentage of students who obtain low scores on the state End-of-Course tests. The following four graphs look at low achievement rates for four courses required for high school graduation.



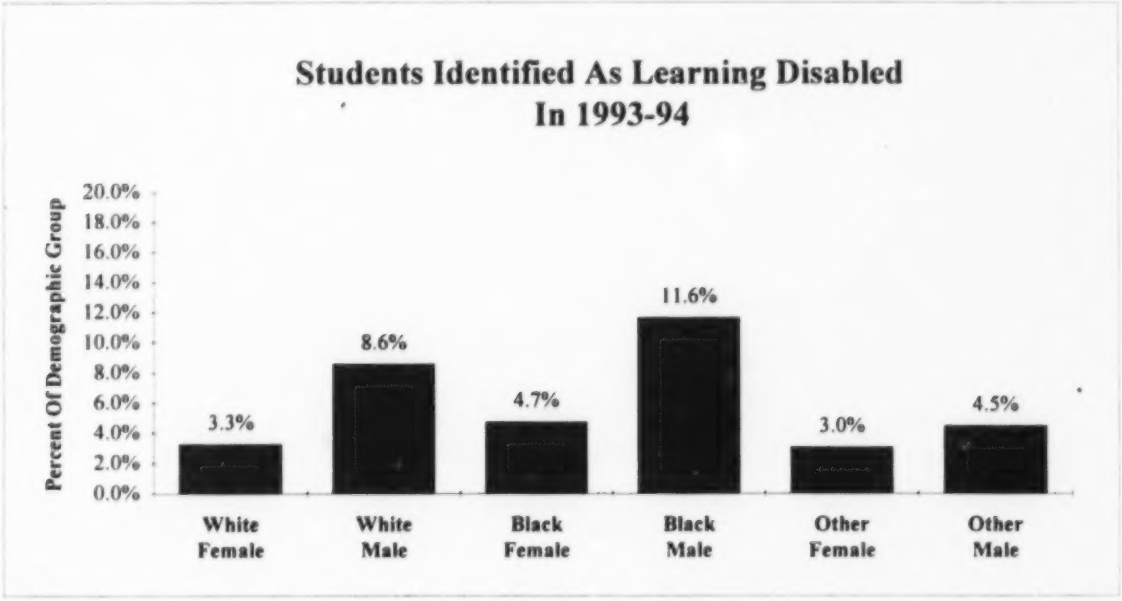


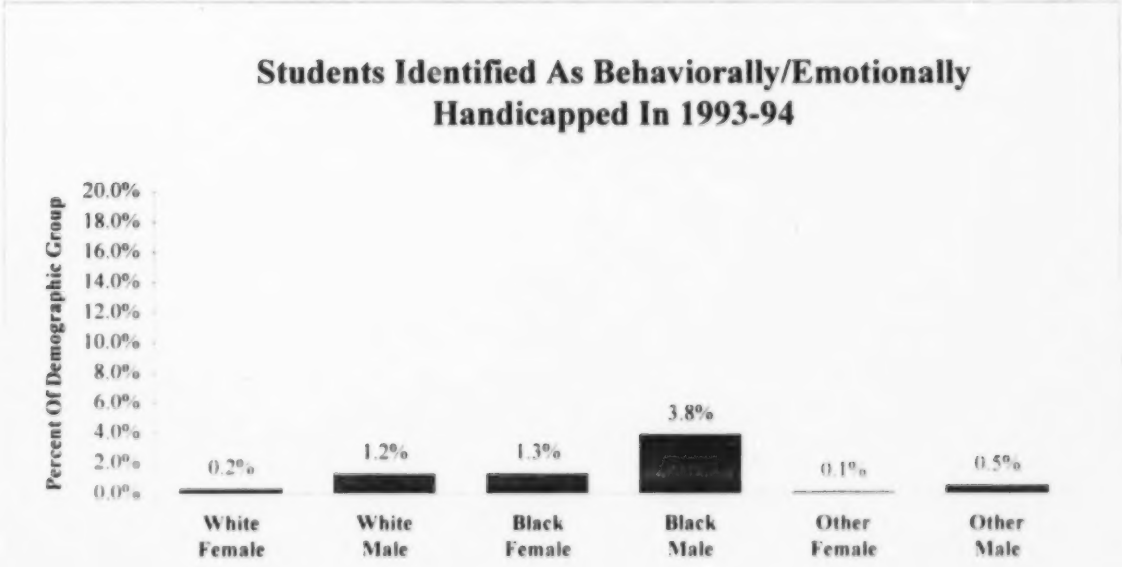
Gender appears to be less of a factor in distinguishing low achievement in mathematics and science than it is in English and history. The profile of low achievers in U.S. History in noteworthy because it is the one measure on which a higher percentage of females than males obtained low scores.



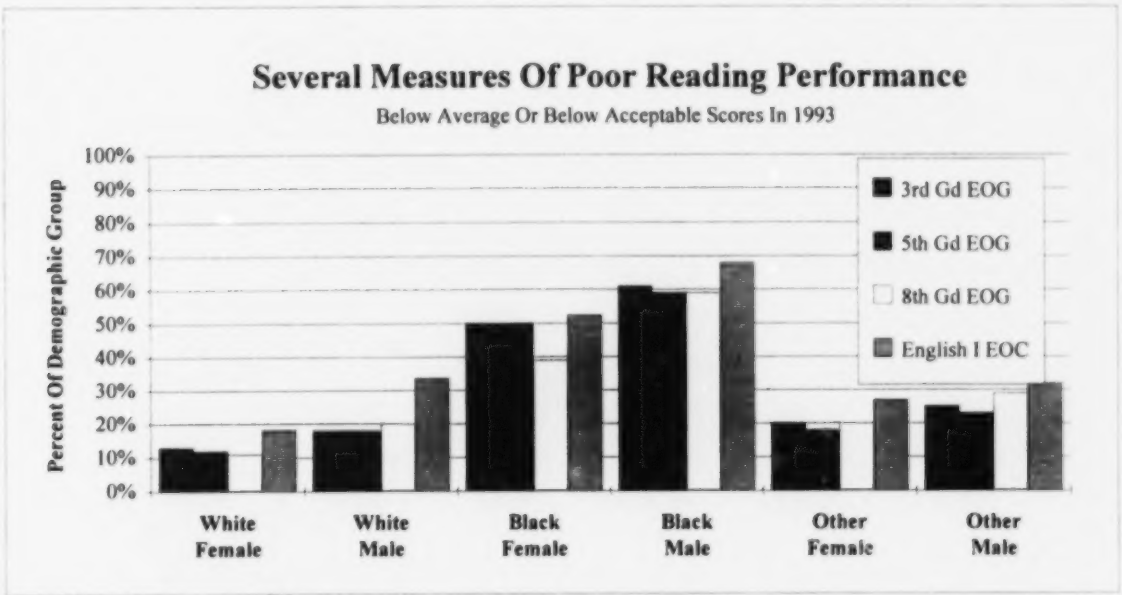


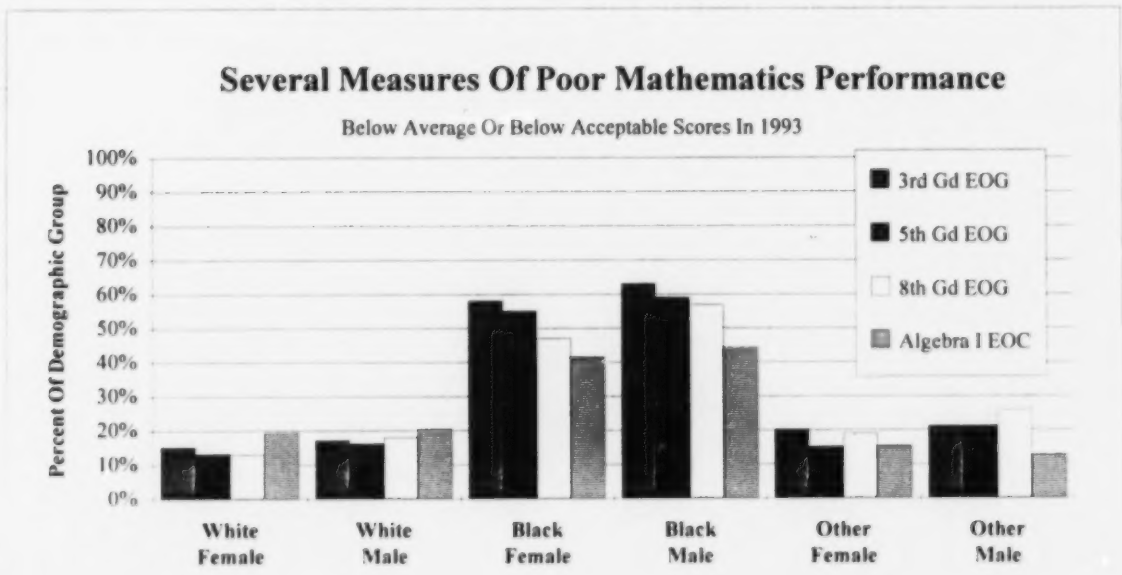
Race and gender seem to have a significant impact upon placement in special programs. As shown below, far more males than females are identified as Learning Disabled, and far more Black males than any other group are identified as Behaviorally/Emotionally Handicapped. The percentages shown are for all students grades K-12.





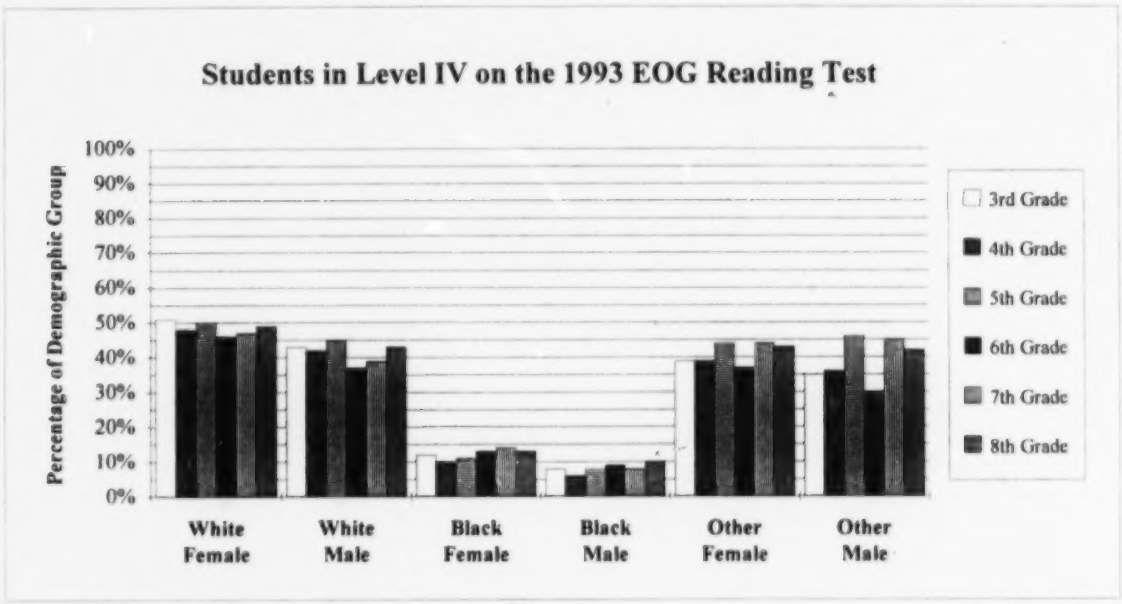
As shown below, the demographic profiles of low achievement were remarkably consistent across grade levels.

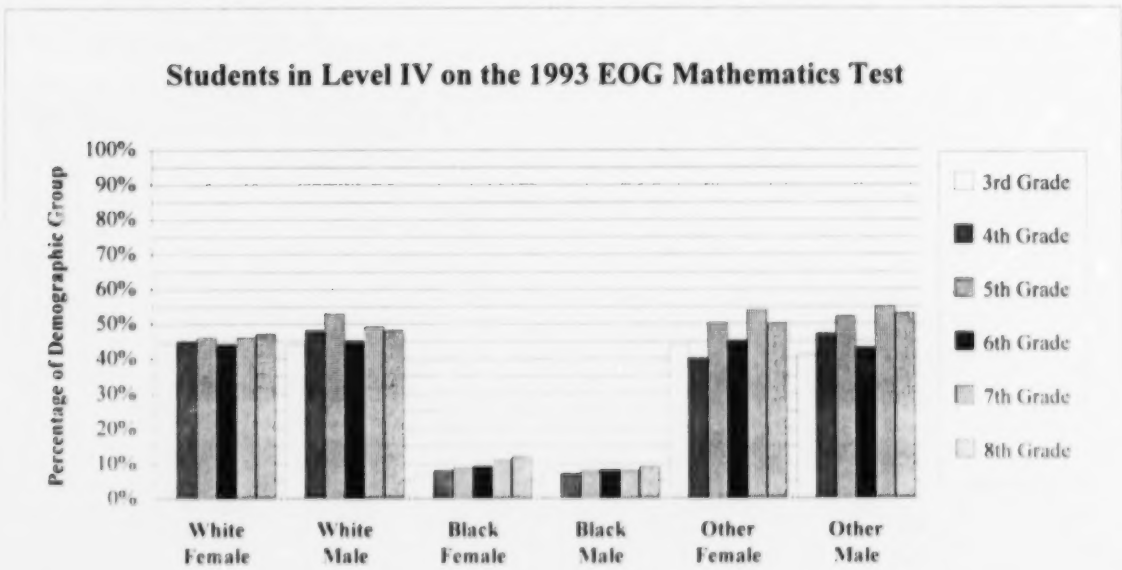




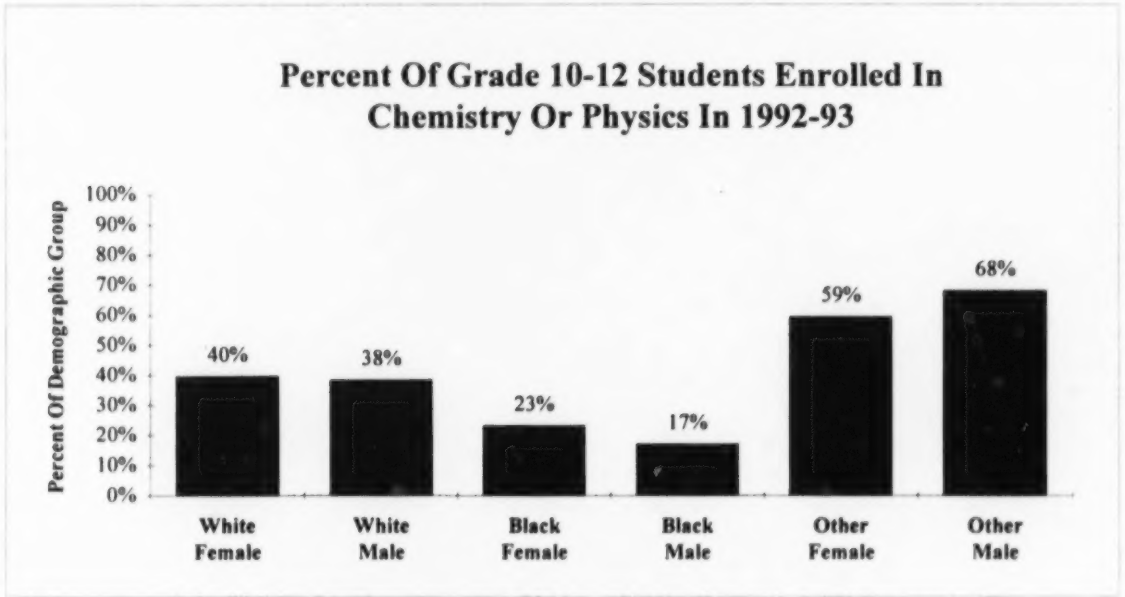
The final four graphs show indicators of academic success. As might be expected, the shape of the demographic curve on these graphs is approximately the inverse of the curve shown on the graphs of academic failure.

Scores in Level IV on the End-of-Grade tests identify students who "consistently perform in a superior manner clearly beyond that required to be proficient." White females generated the highest percentages in this level at all six grades, and Black males generated the lowest percentages.

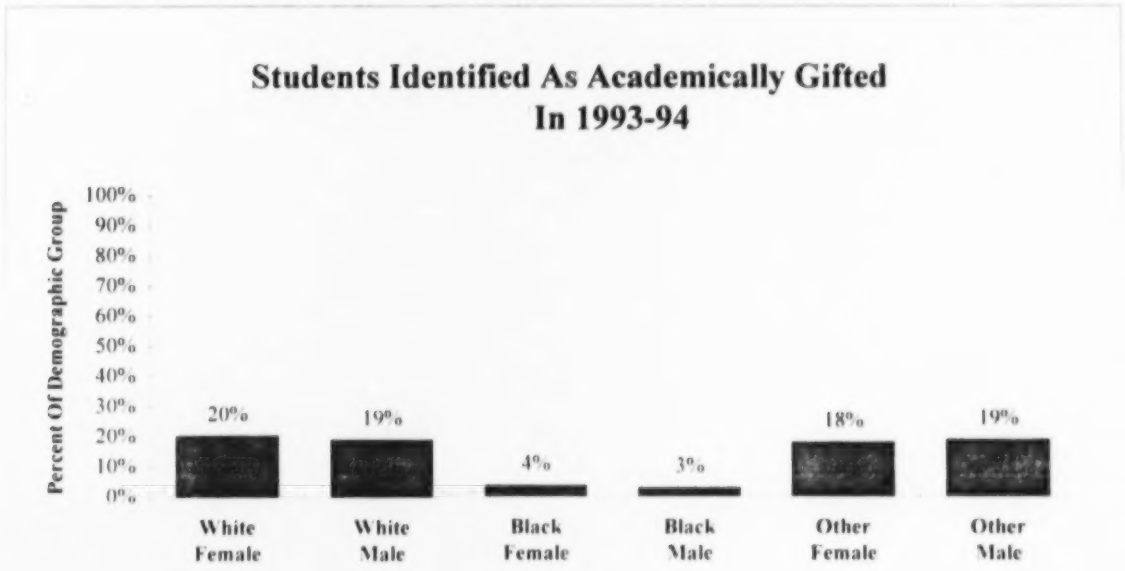




Chemistry and Physics are considered advanced elective science courses, and both proficiency and participation rates in these courses are reported on the state's "report card" for school systems. Both courses are required for recognition through the NC Academic Scholars Program. As shown, a smaller percentage of Black students enrolled in these courses.



Placement in the academically gifted program has been based upon aptitude and ability testing and classroom performance. A much smaller percentage of Black students have been placed in this program than other groups.



RACIAL AND GENDER GAPS IN ACADEMIC ACHIEVEMENT

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